AMENDMENTS TO THE SPECIFICATION

Please insert the following "Background Information" section starting on page 1, line 3 of the Substitute Specification, after the "Field of the Invention" section and before the "Summary" section.

BACKGROUND INFORMATION

Airbag control units in a motor vehicle can have the problem that a fault such as a short circuit of the minus output stage of an ignition circuit control to a vehicle ground or a short circuit of the plus output stage to the vehicle ground can lead to an unintentional triggering of restraint devices. It can also be a problem to rely on a critical low value of a resistance between a printed circuit board ground in the control unit and the vehicle ground to prevent unintentional triggering, especially in vehicles that have an aluminum chassis, which feature higher resistance values due to the type of construction. Moreover, in the case of this material, due to the significant oxide layer formation, it is difficult to guarantee, for the entire service life of the vehicle, a low-impedance connection.

Please replace the "Summary" section, beginning at page 1, line 4, and ending at page 2, line 26, of the Substitute Specification, with the following amended section:

SUMMARY OF THE INVENTION

An example control unit in a motor vehicle in accordance with the present invention may have the advantage that, due to the decoupling of relevant components in [[a]] the control unit, ~~especially~~ e.g., an airbag control unit, from ~~the~~ a vehicle electrical system, cases of a fault such as a short circuit of the minus output stage of the ignition circuit control to the vehicle ground or a short circuit of the plus output stage to the vehicle ground ~~can~~ do not lead to an unintentional triggering of restraint devices. This is due to the fact that, in such a case of a fault in the control unit according to the present invention, no unintended current can flow via the firing element, i.e., a firing pellet for example.

It may also be ~~particularly~~ advantageous that the resistance value between a printed circuit board ground in the control unit and the vehicle ground is not critical to prevent unintentional

triggering, which may be especially important in vehicles that have an aluminum chassis, which feature higher resistance values due to the type of construction. Moreover, in the case of this material, due to the significant oxide layer formation, it is less important ~~difficult~~ to guarantee, for the entire service life of the vehicle, ~~the~~ a very low-impedance connection ~~which may be necessary without~~ with the present invention.

Furthermore, due to ~~the~~ an electrical isolation of ~~in the~~ ICs, which are supplied with ~~by~~ an ~~the~~ electrically isolated supply voltage, it is possible to retain the cost-effective 40 V manufacturing processes even at high electrical system voltages, in the case of a 42 V electrical system for instance. Hence, it is not necessary to switch to more expensive processes with higher voltages, since the vehicle electrical system has no relationship to internal supply voltages. Here, especially in the case of the ignition IC, i.e., the ignition circuit control, space may be saved in the case of the output stage transistors since these no longer need to be short circuit-proof vis-à-vis the high electrical system voltage. It is furthermore advantageous that, due to the electrical isolation, in the case of a fault of a short circuit of the plus output stage to the vehicle ground, the firing pellet can continue to be fired in the standard triggering case since the voltage at the plus output stage is no longer short-circuited.

It may be particularly advantageous if the electrical isolation in the converter used for supplying power to the control unit is achieved by a transformer, in particular, a DC/AC voltage converter on the primary side and a rectifier on the secondary side. Since the battery in the vehicle supplies a direct current, the DC/AC voltage converter is necessary to transmit the power via the transformer. A rectifier is provided on the secondary side because the components situated in the control unit on the secondary side require a DC voltage. The DC/AC voltage converter can take the form of an oscillator or a chopper.

In addition, it may be advantageous if the coupling element used for transmitting data from external peripheral components to the control unit electronics or to the ignition circuit control takes the form of an optocoupler, so that the electrical isolation in the transmission of data is ensured here as well.

Moreover, it may be advantageous if the converter is connected to at least one energy store, preferably a capacitor, which, in the event of a disconnection of the power supply, i.e., of the vehicle battery, continues to run the converter and does so for a specified time. This guarantees a short-term operation of the airbag control unit especially in an accident situation.

Either the entire control unit electronics, i.e., in particular the processor, or merely the ignition circuit control may be provided as the components in the control unit protected by the electrical isolation.